

**PATENT**  
**P02353US0**

~~23~~  
~~4~~ Process according to claim ~~1~~<sup>20</sup> in which the enzyme is:

- (i) P450<sub>cam</sub>, or
- (ii) a naturally occurring homologue of (i), or
- (iii) a mutant of (i) or (ii).

~~24~~  
~~5~~ Process according to claim ~~4~~<sup>23</sup> in which the enzyme is one in which amino acid 96 of P450<sub>cam</sub>, or the equivalent amino acid in a homologue, has been changed to an amino acid with a less polar side-chain.

~~25~~  
~~6~~ Process according to claim ~~1~~<sup>20</sup> in which the halogen is chlorine.

~~26~~  
~~7~~ Process according to claim ~~1~~<sup>20</sup> in which the aromatic compound is a benzene or biphenyl.

~~27~~  
~~8~~ Process for oxidising a halo aromatic substrate, which process comprises oxidising said substrate with a monooxygenase enzyme, wherein the substrate is 1, 2-dichlorobenzene, 1, 2, 4-trichlorobenzene, 3,3'-dichlorobiphenyl, 2,2',4,5,5'-pentachlorobiphenyl, pentachlorobenzene or hexachlorobenzene

~~28~~  
~~9~~ Process according to claim ~~8~~<sup>27</sup> in which the enzyme is:

- (i) P450<sub>cam</sub>, or
- (ii) a naturally occurring homologue of (i), or
- (iii) a mutant of (i) or (ii).

~~29~~  
~~10~~ Process according to claim ~~1~~<sup>20</sup> which is carried out in a cell that expresses:

- (a) a monooxygenase enzyme;
- (b) an electron transfer reductase; and
- (c) an electron transfer redoxin.

~~30~~  
~~11~~ Process according to claim ~~10~~<sup>29</sup> in which (b) is putidaretoxin reductase or a homologue; or a fragment thereof; and/or (c) is putidaretoxin or a homologue; or a fragment thereof.

~~31~~  
~~12~~ Process according to claim ~~10~~<sup>29</sup> wherein the cell is one in which the enzyme (a) does not naturally occur.

~~32~~  
~~13~~ Process for oxidising a halo aromatic substrate which has more than one halogen atom, which process comprises oxidising said substrate with a monooxygenase enzyme, wherein a ring carbon of the substrate is oxidised, the process being carried out in a cell that expresses:

- (a) a monooxygenase enzyme;
- (b) an electron transfer reductase; and
- (c) an electron transfer redoxin,

wherein the cell is one which in its naturally occurring form is able to oxidise a halo aromatic substrate.

~~33~~  
~~14~~ A cell as defined in claim ~~13~~<sup>32</sup>.